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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DIVINE, LUCAS

ART UNIT PAPER NUMBER

2624

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/761,646

Applicant(s)

TSUNEKAWA, KIYOHIRO

Examiner

Lucas Divine

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 16 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10, 11, 16 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Replacement Drawing submitted 1/07/2005 is accepted.

Specification

2. Substitute Specification submitted 1/19/2005 is accepted.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 10 and 21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The computer program claimed is merely a set of instructions per se. Since the computer program stored on a medium is merely a set of instructions not **necessarily** embodied on a **computer readable medium** to realize the computer program functionality, the claimed subject matter is non-statutory. See MPEP § 2106 IV.B.1.

Neither the claims ('storage program medium') nor the amended specification (page 18 lines 3-10, specifically line 6, wherein 'or the like' is stated) **limit** the claimed subject matter to a **computer readable medium**. Applicant must amend the claims to include such language for the claims to be statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 5864732) and Maekawa et al. (US 5096184) hereafter as Kato and Maekawa.

Regarding claim 11, Kato teaches an **image processing apparatus 400 connected to an information processing apparatus** (remote client access via network as discussed in col. 12 lines 37-39) **and an image forming apparatus 40** as shown in Fig. 4, **comprising:**

receiving means for receiving print data from said information processing apparatus (col. 12 lines 37-39, wherein the apparatus may receive information via a network);

generating means for generating page image data on the basis of the print data received by said receiving means (col. 2 lines 10-11, wherein image data is generated by the image processing unit 400 before output to image forming apparatus);

holding means for holding the page image data generated by said generating means in an image memory (Fig. 4, RAM 403); **and**

output means for outputting the page image data generated by said generating means to said image forming apparatus (Fig. 4 ref. no. 40, wherein the CPU 401 outputs data to the image forming unit for printing).

While Kato teaches a print processing system for printing and sorting of inputted print requests (Fig. 1 ref. no. 72) and a sorter 300 with sorting control process S17 for choosing sorting methods based on output sheet numbers vs. bin capacity (Fig. 10), Kato does not

Art Unit: 2624

specifically teach using this control means for **obtaining the number of bins capable of storing and selecting either a first output mode or a second output mode on the basis of number of copies vs. number of bins.**

Maekawa teaches **obtaining means for obtaining information indicative of the number of paper ejection bins capable of being used by said image forming apparatus** (the number 20 in step 123 [Fig. 15] represents the number of bins in the system, the number must have been obtained from memory or some sensing device in order to be used in the control step 132);

control means for (CPU 61 [Fig. 8] acts as controlling means controlling the steps of Fig. 15), **when a plurality of copies of said page image data are outputted to said image forming apparatus by said output means** (the modes selected in Fig. 15 are, by their nature, only used when there are a plurality of copies), **selecting a first output mode when the number of copies of the print data to be outputted is larger than the number of the paper ejection bins capable of being used by said image forming apparatus** (Fig. 15, step 132, when the number of copies is more than the number of bins [YES to step 132], the processing proceeds to step 138, wherein *shift sort* output mode is used), **and selecting a second output mode when the number of copies of the print data to be outputted is equal to or smaller than the number of the paper ejection bins capable of being used by said image forming apparatus** (Fig. 15, step 132, when the number of copies is less than the number of bins [NO to step 132], the processing proceeds to steps 133 and on, wherein a *normal sort* output mode is used),
wherein in said first output mode (*shift sort*; Fig. 16 shows an example, col. 8 lines 23-28 and 58-66), a process is executed for outputting all pages of a first copy of the print data

Art Unit: 2624

to a first paper ejection bin of said image forming apparatus (Fig. 16 shows a first copy of the print data in a first paper bin) and holding the generated page image data by said holding means (in order to process a job via a computer system, the job must be held in some sort of buffer, memory, or disk) and, thereafter, said held page image data is read out an second and subsequent copies of the print data are outputted to said first paper ejection bin or a paper ejection bin other than said first paper ejection bin (subsequent copies can be outputted to a bin that already has a copy [see 18th bin of Fig. 16]), and

in said second output mode (*normal sort*; col. 5 lines 53-57), a process is executed for sorting the page image data generated by said generating means for every page in accordance with a plurality of paper ejection bins possessed by said image forming apparatus (every page is outputted and sorted in accordance with the bins, so no page 1 is found in more than one bin; see Fig. 2A for an example of *normal sort* output mode as known in the art, wherein each bin receives one copy), and outputting said page image data the same number of times as the number of pages to be outputted (in order to complete the number of copies and pages specified by the user, the same number of pages output must be the same number as was scanned in, thus the page image data is output for each page).

It would have been obvious to add the *shift sort* mode of Maekawa to the sheet sorting system of Kato. The motivation for doing so would have been to allow fast and efficient processing of all copies, even if there were not enough bins. It would also allow the outputting of multiple copies to one bin be user friendly by providing the different copies shifted from one another.

Regarding claim 16, the structural elements of apparatus claim 11 perform all of the steps of method claim 16. Claim 16 is therefore rejected for the reasons stated in the rejected claim 11. For example, the RAM 403 of Kato performs a holding step, and CPU 401 of Kato outputs to image forming unit 40 performing an outputting step. Subsequent steps rejected using same analysis based on the rejection of claim 11.

Regarding claim 21, the operation of the computer program claim 21 performs the steps of method claim 16 within a computer readable medium. Therefore, claim 21 is rejected for the reasons stated in the rejection of method claim 16. Kato further teaches the use of a processor 401 capable of performing the method steps as claimed in claim 16 as well as RAM 403 and ROM 404 to store the necessary program data and steps (col. 7 lines 20-44 and throughout Kato).

Allowable Subject Matter

5. Claims 1 – 9 are allowed.

Response to Arguments

6. Applicant's arguments with respect to claim 21 have been considered but are not persuasive, and the amendment does not make the claim statutory. It was stated in the original 35 U.S.C. § 101 rejection that the claim must limit the program to be executed from a **computer readable medium**. Neither the amendment nor the argument on page 12 of applicant's remarks limits the claim to the requirement stated in the original 35 U.S.C. § 101 rejection. Thus the rejection is maintained.

Art Unit: 2624

7. Applicant's arguments with respect to claims 11, 16, and 21 have been considered but are moot in view of the new ground(s) of rejection. In the arguments to claims 11, 16, and 21, there includes no specific argument towards the retained reference Kato, and arguments towards Okumura and Kikuchi are moot in view of the new grounds of rejection.

8. Applicant's arguments with respect to claims 1, 9 and 10 have been fully considered and are persuasive. The 35 USC § 103 rejections of claims 1 – 10 have been withdrawn.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2624

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 571-272-7432. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lucas Divine
Examiner
Art Unit 2624

ljd

**KING Y. POON
PRIMARY EXAMINER**